

SAFE ROUTES TO SCHOOL PLAN 2010

For Savannah, MO

Prepared by: St. Joseph Area Transportation Study
Organization

Greater St. Joseph Area
MPO
Metropolitan Planning Organization

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Background

Many of us remember a time when walking and bicycling to school was a part of everyday life. In 1969, about half of all students walked or bicycled to school. Today, however, the story is very different. Fewer than 15 percent of all school trips are made by walking or bicycling, one-quarter are made on a school bus, and over half of all children arrive at school in private automobiles. For the last several decades there has been a disconnect with the way cities and schools are planned in communities.

Traditionally, when a school district started developing plans to build a new school, there was coordination with the City at the onset. This effort resulted in schools around the Country being built with the community in mind. The resulting schools were typically situated in neighborhoods, close to homes and within a safe and reasonable walking distance. The streets were narrow, allowing for slower driving speeds.

It is hard to calculate the true cost of building large sprawling schools on the fringe, but most would agree that the cost of sprawl in general is substantial for any town. A driver of relocation to the fringe is that school districts have policies in place that require 15-20 acres of land. This policy makes it difficult to find land within established neighborhoods to build on. The result is a school built on the fringe of town that require substantial upgrades that can include:

- Sewer Extensions
- Road Construction/Reconstruction
- Intersection Upgrades
- Utility Extensions (water, power)
- Police and Fire Services
- Water Retention/Detention

Development then concentrates around a new site, pulling residents from existing neighborhoods to be near the educational center. The areas around the old school fall into despair as a result of ex-migration from the urban core to the fringe.

At first glance, buying up a cheap piece of land on the fringe sounds like a deal, but the potential infrastructure costs are long term and hard to fix once in place. In the St. Joseph School District for example, “fringe schools” are thought to be best suited along an arterial roadway. Roadways of this kind tend to be wider lanes, carrying heavier traffic, at higher speeds. Even if sidewalks were in place for children to walk, would that alone make it safer?

Many arterial roadways carry 4 lanes of traffic. Imagine school children trying to cross a busy intersection to get to school with 60 feet of pavement to cross. Most would agree that schools located on such roads needlessly create a less safe environment for children to walk, even if the child lived a quarter of a mile away. This is very typical example of physically barricading children from walking or bicycling.

It is unreasonable to expect a school district to understand the complexities of urban planning and neither the district or the City should take full responsibility for doing so. A solid partnership is needed from both to restore the idea of a traditional neighborhood school in an environment conducive to walking and bicycling. There's a symbolic relationship between neighborhoods and schools. Both need each other to thrive.

By disconnecting schools from the urban core, a decline in walking and bicycling has resulted. This phenomena has created a adverse effect on traffic congestion and air quality around schools, neighborhoods, and pedestrian and bicycle safety. In addition, a growing body of evidence has shown that children who lead sedentary lifestyles are at risk for a variety of health problems such as obesity, diabetes, and cardiovascular disease. Neighborhoods break down as areas turn their back on their public face (the street), sidewalks deteriorate, and the "compound" effect is the apparent rule of the day. Safety issues are a big concern for parents, who consistently cite traffic danger as a reason why their children are unable to bicycle or walk to school.

The purpose of the Safe Routes to School (SRTS) Plan is to address these issues directly. At its heart, the SRTS Plan empowers communities to make walking and bicycling to school a safe and routine activity once again, revitalizing neighborhoods and resident sense of ownership and protectiveness of each other's property and families. Although Safe Routes is traditionally aimed at safety and facilities, it is important to understand the indirect benefit the initiative could have in neighborhoods as they seek to "take back their streets", but in terms of physical condition, aesthetics, and public safety.

-- Excerpt from Federal Highway Administration *Safe Routes to School Program* –
FHWA Safety.

Introduction

The Saint Joseph Area Transportation Study Organization (SJATSO) has compiled a list of all the schools within the Metropolitan Planning Organization (MPO). Within this boundary are schools in St. Joseph, MO, Savannah, MO, Village of Country Club, MO, Wathena, KS, and Elwood, KS (see Figure 1 below). These communities are located in the urbanizing area of the metropolitan area.

The purpose of this document is to:

- ❖ Educate the community about the benefit of walking and biking to school and how this can be executed in a safe manner.
- ❖ Encourage schools, teachers, and parents to become supporters of a healthy walking and biking community.

In an effort to complete the goals, the following tasks will be addressed in the plan:

- ❖ Assess the current sidewalk conditions around each school
- ❖ Provide estimates to fix dilapidated sidewalks and to install new ones
- ❖ Compile possible funding sources that are could be channeled toward sidewalk replacements and new construction
- ❖ Generate a demographic profile of each school within area school district to assist in prioritizing individual schools with the most need
- ❖ Assess any non-infrastructure programs that are currently in place and recommend future programs.

All of these tasks will assist in providing a strategy to create a safe walking environment for students.

The supplied information that can be found for each school includes enrollment count, percent of students below the poverty level and percent of students that are considered a minority under the Civil Rights Act of 1964.

The Department of Transportation (DOT) Order on Environmental Justice and Executive Order 12898 address persons belonging to any of the following groups:

- ❖ Black
- ❖ Hispanic
- ❖ Asian American
- ❖ American Indian and Alaskan Native
- ❖ Low-Income

The enrollment information was provided to the MPO by the superintendents of each school district. A percentage of students below poverty level were taken from this count. “*Below poverty level*” is those students who qualify for a free or reduced lunch fare.

The Decline of Walking and Biking to School

Why aren’t children walking to school? Unfortunately, this is a question with many answers. Multiple factors contribute to the reduction in walking and biking to school.

The U.S. Centers for Disease Control and Prevention conducted two nationwide surveys of parents that identify barriers that prevent parents from allowing their children to walk and bike to school. The survey was conducted on children between the ages of 5 to 18 years of age. 1,599 adults answered the survey and parents cited on of the following six reasons:

Barrier¹	% of Parents that identify with barrier
Distance to School	61.5
Traffic-Related Danger	30.4
Weather	18.6
Crime Danger	11.7
Opposing School Policy	6.0
Other Reasons (not identified)	15.0

By identifying these barriers, one can begin to understand how each can be addressed. One of the largest challenges is the proximity to residential areas.

Nationally through the 1960’s, many schools were centrally located in communities. Close proximity to residential areas made walking and bicycling to school the common mode of transportation. Recently, the trend has shifted from building several small neighborhood schools, to a few, larger schools. While the number of school districts decreased nearly eight-fold, the number of students more than doubled. Average classroom size has increased over five-fold due to this change². Planners call this trend the “Wal-Mart” effect, in which small neighborhood schools close in favor of mega-schools typically located on the edge of town.

With the change in building size comes a change in location of the buildings and their orientation of proximity to the neighborhoods they serve. These “mega-schools” require larger tracts of land, often from 10 to 30 acres and available. Since more land is required, it is much cheaper to build where land cost is lower: the edges of communities. This leaves a hole in the center of communities where the old schools once were. The resulting disconnect creates an impossible obstacle for most students to walk and bike to school. One might question whether or not School Districts drive Urban Sprawl or contribute to the problem.

In addition to increasing land costs, other factors contribute to the placement of schools on the fringes of communities. They include school citing standards, school funding

formula land use policies and lack of coordination between school officials and city planners.

Some Facts:

- ❖ In 2004, 27 states had some form of minimum acreage standards for school siting. These standards often demand large tracts of land that can be found only in less developed parts of communities or outside of town³.
- ❖ School funding formulas that favor new construction over renovation of existing schools often do not consider long-term transportation, operation and maintenance, and infrastructure improvement costs (e.g. Sewer, water and road) associated with building in a new location³.
- ❖ The prevailing land use pattern and zoning ordinances require the separation of land by usage type. Low, medium, and high-density residential, commercial, and institutional uses are each separated from one another and connected by motor vehicle. This makes walking to school in suburban areas challenging because of the low housing density within walking and bicycling distance and the safety issues posed by busy roads or an incorporated sidewalk system¹.
- ❖ School boards often communicate with planning officials after a decision is made about a site for a new school or whether to close or renovate an existing school¹.



There are roughly 10 students in the picture walking to school, which means 10 less cars causing congestion near the school!

Urban Sprawl and the Cost to the Community

By definition, urban sprawl is the spreading of a city, creating suburbs that expand from the urban core to the fringe of the urban area. Sprawling neighborhoods tends to be single-family homes, relying predominately on the automobile. The neighborhoods are not designed to be accommodating to public transportation or pedestrians. Because of that, this causes:

- Increase in pollution
- Increased school costs
- Agricultural land consumption
- Lack of connectivity
- Higher taxes in the community to support the less efficient provision of services over a larger geographic area with a low density population.
- Increase in traffic
- Increase in obesity



A Neighborhood School is designed for walkers and bicyclists, leaving the ocean of parking in the back.

- Reduced water quality and quantity
- Decrease in social capital

Some typical features of urban sprawl include:

- Single use zoning
- Low density land use
- Strip malls
- Subdivisions with curved roads and cul-de-sacs
- Limited entrances/exits in subdivisions
- Poor and ill-defined functional classification grid

It is a common misconception that urban sprawl is driven by the wants and needs of the community. The reality is that sprawl is driven single-handedly by developers and supported by the families willing to buy or shop in the areas created. Land outside of the urban area is cheap, quick and easy to build on. Communities that have put in place policies that support sprawl are essentially subsidizing private development. New Subdivisions typically lack through streets, adding to the connectivity issue with other amenities around them. Traditionally, there is one way in and one way out. Getting to the nearby grocery store is impossible without a car because most developments lack sidewalks, the proper infrastructure for bicycles or a connection for public transportation. As a result, low density homes are built on the fringe with the average two vehicles per household. In addition to the high cost of owning two vehicles, there are higher taxes follow because of the increase in public services such as sewer, parking infrastructure, electricity, emergency services, water, etc.



Typical sprawling subdivision. Land has been converted from agriculture to low density single family with multiple cul-de-sacs and few entrances/exits. No close access to commercial or business areas.



New Urbanism community allows for mixed use zoning by incorporating residential, commercial and business all within walking distance of each other.

How does this tie in with Safe Routes to School? In many ways: children need a safe means to get to school without waiting in the long line of cars to drop them off. School Districts have responded to Urban Sprawl by closing many “neighborhood” schools, and building on the fringe; new facilities are also typically located on a road of a higher functional classification with typical volumes over 500 cars per day. This type of environment does not make it desirable to walk to school.

School Districts need to not only coordinate more with their local planning department, but also talk to developers in the area about incorporating a new school inside a neighborhood, making it safe and convenient for children. Assuring compatibility with the surrounding uses is imperative in providing the appropriate service for the community. Taking this approach will alleviate the future challenges we are facing today due to rapid growth in the fringes of town, where compatible school development has proven to be challenging and expensive. This is all tied to the urban sprawl effect.

A positive solution to reversing urban sprawl is embracing the idea of “New Urbanism.” This concept involves designing and restoring niches to incorporate mixed use development of residential and commercial; all within close proximity of each other. Livable communities alone would solve most American’s financial complications, especially in a country that is seeing their fair share of economic problems. What makes a community livable? According to the Environmental Protection Agency (EPA), the 10 guidelines for new urbanism are⁹:

- Mixed land uses
- Take advantage of compact building design
- Create housing opportunities and choices for a range of household types, family size and incomes
- Create walkable neighborhoods
- Foster distinctive, attractive communities with a strong sense of place
- Preserve open space, farmland, natural beauty and critical environmental areas
- Reinvest in and strengthen existing communities & achieve more balanced regional development
- Provide a variety of transportation choices
- Make development decisions predictable, fair and cost-effective
- Encourage citizen stakeholder participation in development decisions

What are the costs of urban sprawl? This is a difficult number to figure, but one example from the State of New Jersey gives a compelling estimate:

“The State of New Jersey evaluated conventional sprawl growth patterns against a mix of “infill” development, higher density concentrated new development and traditional sprawl. Infill and higher density growth would result in a savings of \$1.18 Billion in roads, water and sanitary sewer construction and \$400 Million in direct savings to local governments. Over 15 years, it amounts to \$7.8 Billion. This does not take into account reductions in the cost of other public infrastructure that result from “infill” growth: decreased spending on storm drainage, less need for school busing (and parent taxi service), fewer fire stations and less travel time for police, ambulance, garbage collection and other services.”¹⁰

To put this into local numbers, that would average out a savings for the St. Joseph Metropolitan Area over a 15 year span to \$99 Million dollars in infrastructure savings.

Reversing the Trend

Imagine living in a community that has been designed for people instead of automobiles; having shops, restaurants, offices and other amenities within walking or biking distance from a residence. More specifically, design elements that can include commercial areas that directly front a sidewalk instead of a parking lot, narrow streets for slower traffic and not a cul-de-sac in sight. These elements can be used in choosing to build on a local street instead of a large arterial corridor with heavy traffic. Taking the school to the children instead of the children to the school can provide long term benefits and cost saving to the entire community. It is important for communities to adopt policies that discourage outward sprawling development and start providing incentives to bring development back to the core and established neighborhoods.

Safety

It is important to identify unsafe behaviors of drivers, pedestrians and bicyclist around schools. Since more and more students are traveling via automobile, identifying potential conflict points before an accident occurs could result in the difference between life and death. Listed below are common unsafe driver behaviors you might see on the school campus⁸:

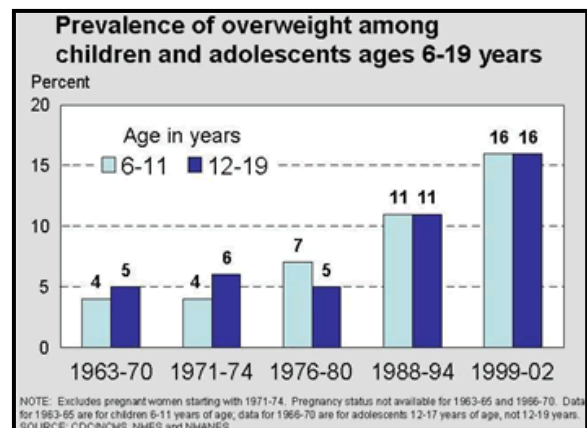


- ❖ Illegal parking.
- ❖ Motor vehicle stopping in a bus zone.
- ❖ Dropping off students in the street rather than in the appropriate location adjacent to the curb.
- ❖ Drivers letting students walk between parked motor vehicles and busses.
- ❖ Violating school drop-off and pick-up procedures.

Researchers for the Marin County, California program found that up to 30 percent of morning traffic is caused by parents driving their children to school.

Health Risks

For children, it is recommended to get 60 minutes of physical activity each day. Regular physical activity helps build and maintain healthy bones and muscles, reducing the risk of developing obesity and chronic diseases, reduced feelings of depression and anxiety, and promotes psychological well-being⁵. Inadequate physical activity and poor eating habits are major contributors to the increased rates of childhood obesity and overweight in the United States. Obese children are twice as likely to become obese as adults.

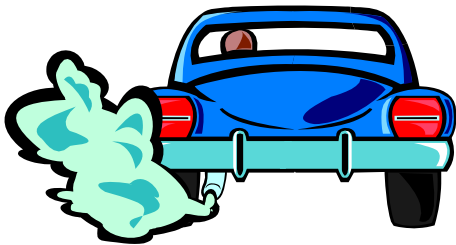


Source: CDC/National Center for Health Statistics, National Health Examination Survey and NHANES

Not only does driving your child to school show a relationship with physical health, but it also makes an impact on social behavior development as well. Driving a child from home to school limits the child's opportunities to interact with their neighborhood and other children.

Environmental Concerns

It is without question that more vehicles on the road equals more air pollution. Walking to school provides a prime opportunity to reduce air pollution. Pollution control measures initiated in the past two decades have helped to reduce emission per vehicle, yet auto emissions have continued to rise because mile driven have doubled⁶. Estimates from multiple cities indicate that the motor vehicle traffic generated by the travel to and from school contribute 20 to 30 percent more traffic volume on the roads⁷. By placing schools within the communities, this will reduce traffic and congestion as well as improve health. Studies indicate that approximately 5 million children in the United States suffer from asthma, which causes many lost schools days over the course of the year. By reducing carbon dioxide alone, one can begin to see everyday respiratory problems reduce. Children and adults with asthma are particularly sensitive to poor air quality.



FACT: Motor vehicle emissions represent 31% of total carbon dioxide, 81% of carbon monoxide, and 49% of nitrogen oxides released in the United States. A short, four-mile trip by foot or bike keeps about 15 pounds of pollutants out of the air we breathe!

How to Apply the Five “E’s” to Safe Routes to School

Collectively, Safe Routes to School Plan will achieve a wide range of benefits for students, schools and the community. The five “E’s” – Education, Encouragement, Enforcement, Engineering and Evaluation, encumber these benefits such as reducing traffic around schools, improving access for pedestrians and bicyclists and increase safety and physical activity.

It's important to consider all the five “E’s” when implementing Safe Routes to School and decide which factors bear more weight than others depending on your community's particular needs.

Education activities target parents, neighbors and other drivers in the community to remind them to yield to pedestrians, to drive safely and to take other actions to make it safer for pedestrians and bicyclists. Parents serve as role models for their children and play an important part in teaching them pedestrian and bicycle safety. Education

activities also teach students how to walk and bicycle safely and the benefits of doing so.

Encouragement strategies generate excitement about walking and bicycling safely to school. Children, parents, teachers, school administrators and others can all be involved in special events like International Walk to School Day and ongoing activities like walking school buses. Encouragement strategies can often be started relatively easily with little cost and a focus on fun.

Enforcement activities can help to change unsafe behaviors of drivers, bicyclists and pedestrians. They can increase driver awareness of laws, and they also can improve driver behavior by reducing speeds and increasing yielding to pedestrians. In addition, enforcement activities teach pedestrians and bicyclists to walk and bicycle safely and to pay attention to their environment. Enforcement doesn't just involve law enforcement. Many different community members take part in making sure everyone follows the rules, including students, parents, school personnel and adult school crossing guards. In addition, the role of the law enforcement officers often goes beyond enforcement and can be included in all strategies of the SRTS program.

Engineering addresses the built environment with tools that can be used to create safe places to walk or bicycle and can also influence the way people behave. Transportation engineers, city planners and architects use methods to create safer settings for walking and bicycling while recognizing that a roadway needs to safely accommodate all modes of transportation. Such improvements can include maintenance and operational measures as well as construction projects with a range of costs. When such programs are properly implemented, they may not only improve safety for children, but they also may encourage more walking and bicycling by the general public.

Evaluation, monitoring and documenting outcomes and trends through the collection of data before and after the intervention. This can also be incorporated into the four "E's" listed above.

Methods of Creating a Safe Routes to School Program

EDUCATION: Identify people who are interested in walking and bicycling to school

Form a Safe Routes to School coalition by gathering interested people to share common ideas and concerns. It's also important to consider how large the group wants to plan for; something small such as a single school, or a district-wide level. For example, by forming a coalition for one individual school, it is easier to tackle small details and provide more resources; whereas a district-wide coalition would be better suited if the priorities of the group were to change or create policies that affect all schools within the district.

The following list below identifies potential members of a Safe Routes to School coalition. These three areas can provide for a well-rounded group with an array of interests¹.

School:	Community:	Local Government:
<ul style="list-style-type: none"> ▪ Principal and other Administrators ▪ Parents and students ▪ Teachers ▪ PTA/PTO representative ▪ School nurse ▪ School district transportation director ▪ School improvement team or site council member. ▪ Adult school crossing guards 	<ul style="list-style-type: none"> ▪ Community members ▪ Neighborhood Associations ▪ Local businesses. ▪ Local pedestrian, bicycle and safety advocates 	<ul style="list-style-type: none"> ▪ Mayor's office or council member ▪ Transportation or traffic engineer ▪ Local planner ▪ Public health professional ▪ Public works representative ▪ Law enforcement officer ▪ State or local pedestrian bicycle coordinator

After identifying interest parties, it is recommended to hold a kick-off meeting. Two things should be accomplished at the first meeting: create a vision of what the group would like to see accomplished, and to generate the next steps that are needed. Other beneficial techniques involve forming various committees. These can be formed at the kickoff meeting. Examples of specific committees include outreach, education, enforcement, traffic safety and information gathering. Whether or not one chooses to form committees, it is important to identify these elements when creating a safer walking/biking environment for children:

- Identify problems with the current system and infrastructure
- Identify possible solutions to the problem
- Make a plan
- Fund the plan
- Act on the plan

ENCOURAGEMENT: Examples of Successful Safe Routes Programs

Drop-Off and Pick Up

- Launch a Walking School Bus campaign. A walking school bus is a group of children walking to school with one or more adults. If that sounds simple, it is, and that's part of the beauty of the walking school bus. It can be as informal as two families taking turns walking their children to school to as structured as a route with meeting points, a timetable and a regularly rotated schedule of trained volunteers.

A variation on the walking school bus is the bicycle train, in which adults supervise children riding their bikes to school. The flexibility of the walking school bus makes it appealing to communities of all sizes with varying needs.

- “25 or Less” Campaign. A creative initiative first started up by Morton Way Public School in Brampton, Ontario, Canada to reduce the amount of vehicles at the school through a '25 cars or less' campaign. A 'thermometer' is displayed to alert drivers how many vehicles dropped off students the day before and school PA announcements update the students of progress. There are also signs displayed around the school promoting the '25 or less' campaign.
- Encourage Carpooling. Families that have no alternative to driving their children to school can also carpool to reduce traffic congestion at the school. Many communities have developed “school pool” programs in which a voluntary group of parents share the responsibility of getting children to and from school safely. To enhance this program, schools can choose to stripe a “preferred drop-off and pick-up lane” for those who choose to carpool.

ENFORCEMENT: Improve Safety Behaviors

- Safety Patrols. Students assist with drop-off and pick-up procedures at school. This allows students to participate in promoting traffic safety at their school as well as increase traffic flow efficiency.
- Adult School Crossing Guards. Plays a key role in promoting safe driving and pedestrian behaviors around school. It helps to assist children across the street and also reminds drivers of the presence of pedestrians.
- Neighborhood Speed Watch Programs. Encourages citizens to take an active role in changing driver behavior in their neighborhoods. Residents rent a radar unit from the City and record speed and license plate number from speeding vehicles in their neighborhood. A letter is sent to the violator to help encourage a safe driving speed at or below the posted limit.



Fifty percent of the children hit by cars near schools are hit by vehicles driven by parents of other students, according to the National Highway Traffic Safety Administration

or



Independent and safe mobility for children

Possible Funding Sources

When it comes to implementing a plan, the first thing that comes to mind is, “How are we going to fund this?” For projects that require a large amount of capital, such as new sidewalk construction, this is especially true. There are several places to seek funding for SRTS activities including:

- ❖ Federal programs: SAFETEA-LU (including funds allocated to SRTS), Congestion Mitigation and Air Quality (CMAQ), Surface Transportation Program (STP), Recreational Trail Programs and others.
- ❖ Revise development standards to include appropriate elements for new and re-development
- ❖ State Safe Routes to School programs
- ❖ Environmental and air quality funds
- ❖ Health and physical activity funds
- ❖ Housing and Urban Development
- ❖ Sales Tax
- ❖ Property Tax
- ❖ Benefit Districts
- ❖ Philanthropic organizations

If one finds it difficult to obtain money for specific elements in your plan, there are many low-cost engineering solutions that can be put into place in a relatively short amount of time such as new signs or fresh paint on crosswalks. On a positive note, many International Walk to School Day Coordinators indicate spending less than \$100 dollars on their events.

The Federal Grant Program

The Federal-aid Safe Routes to School Program (SRTS) was created by Section 1404 of the *Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users* (SAFETEA-LU), was signed into law in 2005. The Federal SRTS Program is funded at \$612 million and provides Federal-aid highway funds to State Departments of Transportation (DOTs) over five Federal fiscal years (FY2005-2009). These funds are available for infrastructure and noninfrastructure projects, and to administer state SRTS programs that benefit elementary and middle school children in grades K-8. For the schools within the St. Joseph MPO area, the SRTS Program is administered by the Highway Safety Division of MoDOT.

Section 1404(b) of the legislation describes the purposes for which the SRTS Program was created:

- (b) PURPOSES.—The purposes of the program shall be-*
- (1) to enable and encourage children, including those with disabilities, to walk and bicycle to school;*
 - (2) to make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and*

(3) to facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools.

Further explanations of eligible infrastructure and noninfrastructure projects can be found at: <http://www.modot.org/safety/SafeRoutestoSchool.htm>

Sidewalk Ratings

To determine an accurate cost estimate for 5 foot sidewalk installations and repairs, a sidewalk rating is given to all sections of the sidewalk. The rating is as follows:

Code 1: Excellent condition, no replacement needed.

Code 2: Sidewalks exist and are generally in good condition, little cracking or spalling, roughly 50% of section needs replacement.

Code 3: Sidewalk exists but in very poor condition; needs to be removed completely and replaced with new sidewalk.

Code 4: No sidewalks exist, install with few or no impediments. Some impediments include ditches that require fill, utility relocation, rough terrain, etc. Code 4 sidewalks will generally be a flat terrain that is easy to pour concrete that requires very minimal modification to the site.

Code 5: No sidewalks, install with difficult impediments. Some impediments include ditches that require fill, utility relocation, rough terrain, etc.

Phasing of Sidewalk Replacements

Some of the sidewalk replacement projects are split up into phases. This was done to produce a project that is reasonable for the community to fund. The phases have been listed in order of priority according to the community goals and long range vision.

Community Profile of Savannah, Missouri

Savannah is located in Andrew County. The county was originally a part of the Platte Purchase of 1836 and was viewed as a land of opportunity. Savannah, Missouri was selected as the county seat of Andrew County in 1841 and quickly grew and prospered. Originally called the town of Union, the name was changed to Savannah. The town of Savannah was approved for incorporation in 1853.

Savannah has a population of 4,762 and 446 households according to the 2000 U.S. Census. The average household income is \$28,950.

Savannah School District

The Savannah R-III School District with an enrollment of over 2300 students, the largest of the three school districts in Andrew County, is rated Accredited, by the Missouri Department of Elementary and Secondary Education. The district achieved and was recognized as a district receiving the Distinctive Performance Award in the spring of 2002 and 2003. The Savannah High School enrolls between 700 and 800 students per year; approximately 480 students attend the Savannah Middle School.

Figure 1
St. Joseph Area Transportation Study Area

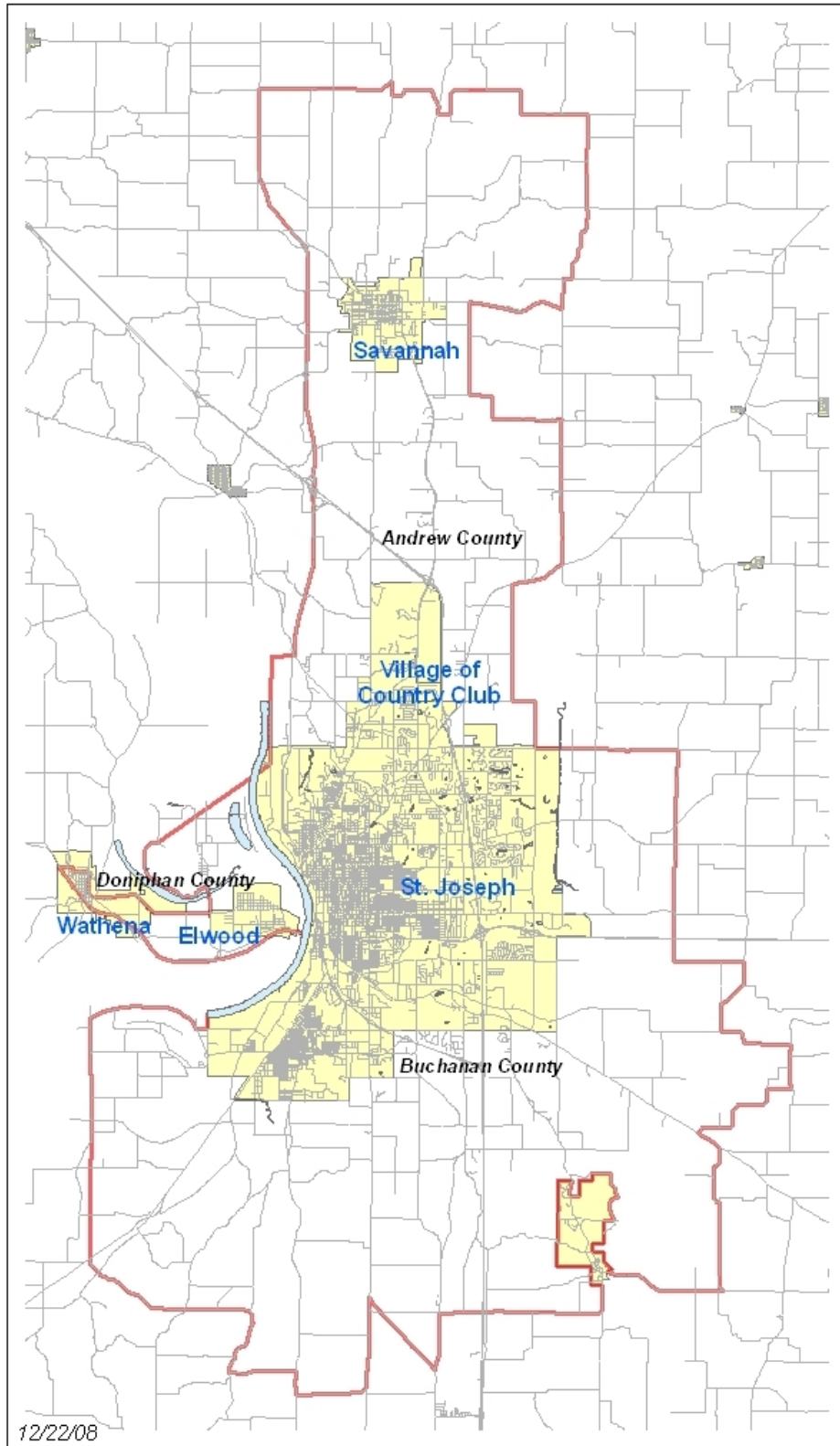
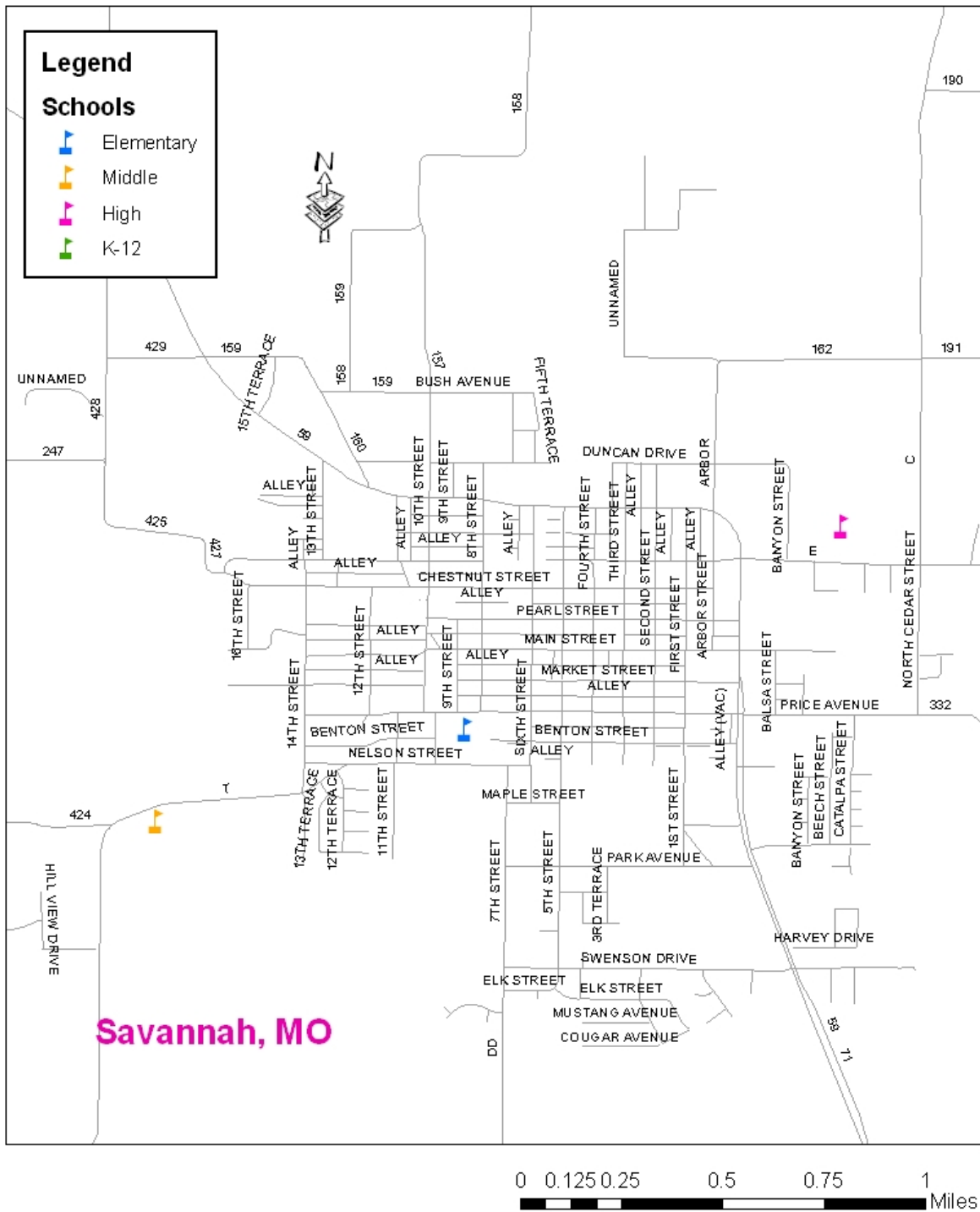


Figure 2

Schools In Savannah, MO



**Minnie Cline Elementary School
808 W Price Ave.
Savannah, MO 64485
(816) 324-3915
Principal**



Enrollment 550

Below Poverty 32%

Minorities 4%

Cost Estimate for Minnie Cline Elementary

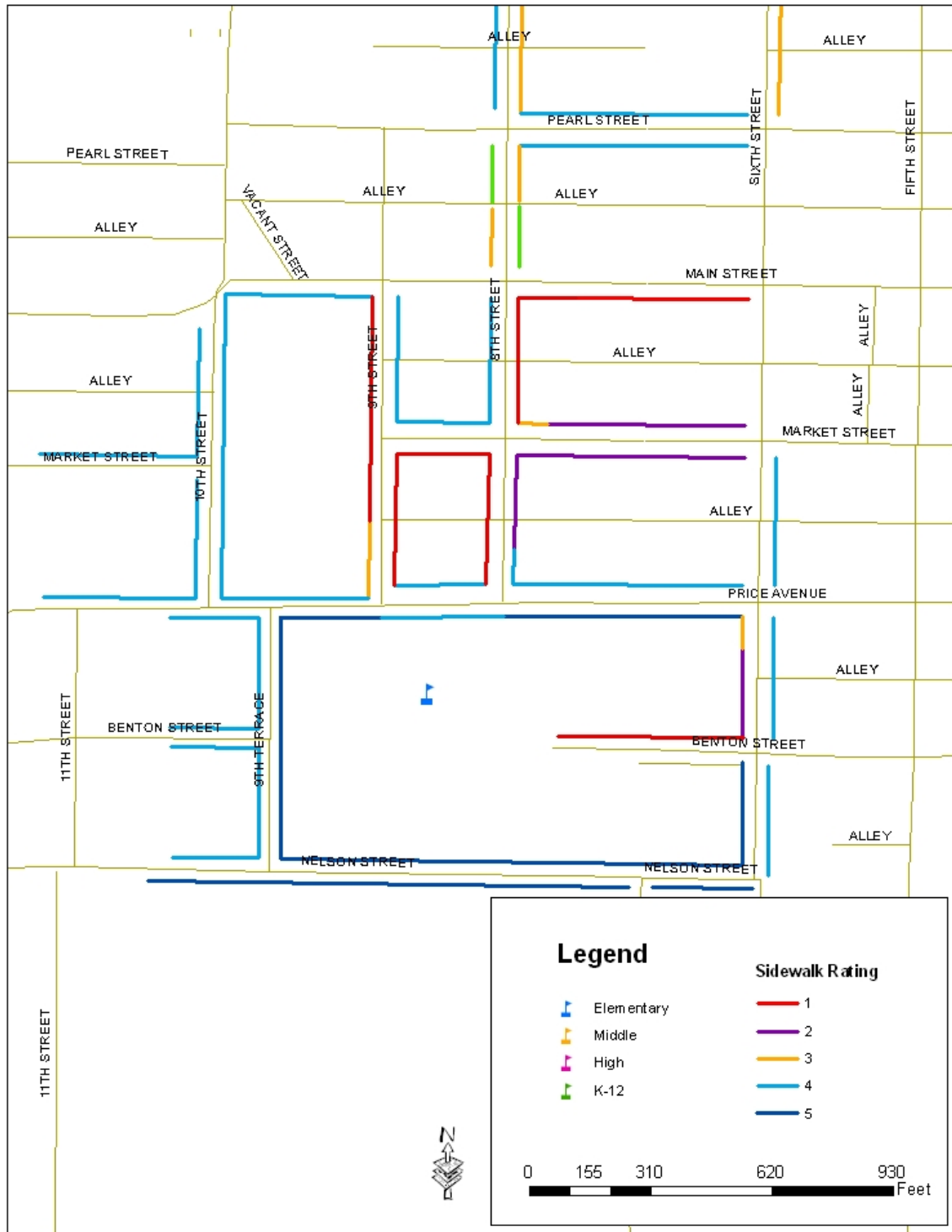
Refer to the corresponding map. The map includes an analysis of the sidewalk conditions around the school. Estimates are based upon the current conditions of the infrastructure

ITEM	QUANTITY	PRICE	TOTAL
Code 1: No Replacement	8,742 S.F.	\$ 0.00/ S.F.	\$ 0
Code 2: Good Condition. Little cracking. 50% of section needs replacement.	6,713 S.F.	\$ 2.50/ S.F.	\$ 16,782.50
Code 3: Poor condition. Remove and replace.	1,230 S.F.	\$ 5.00/ S.F.	\$ 6,150.00
Code 4: No sidewalk. Install with few impediments.	39,758 S.F.	\$ 7.00/ S.F.	\$ 278,306.00
Code 5: No sidewalk. Install with difficult impediments.	17,162 S.F.	\$ 9.00/ S.F.	\$ 154,458.00
20% Contingency*			\$ 91,139.30
TOTAL			\$ 546,835.80

* A 20% contingency has been added to the cost as a reserve so costs are not underestimated.

Figure 3

Minnie Cline Sidewalk Conditions



John Glen Elementary
12401 County Road 438
Savannah, MO 64505
(816) 279-0540
Principal



Enrollment 240

Below Poverty 30%

Minorities 6%

Cost Estimate for John Glen Elementary

Refer to the corresponding map. The map includes an analysis of the sidewalk conditions around the school. Estimates are based upon the current conditions of the infrastructure.

ITEM	QUANTITY	PRICE	TOTAL
Code 1: No Replacement	0 S.F.	\$ 0.00/ S.F.	\$ 0
Code 2: Good Condition. Little cracking. 50% of section needs replacement.	0 S.F.	\$ 2.50/ S.F.	\$ 0
Code 3: Poor condition. Remove and replace.	0 S.F.	\$ 5.00/ S.F.	\$ 0
Code 4: No sidewalk. Install with few impediments.	15,630 S.F.	\$ 7.00/ S.F.	\$ 109,410.00
Code 5: No sidewalk. Install with difficult impediments.	0 S.F.	\$ 9.00/ S.F.	\$ 0
Retaining Wall	4,700 S.F.	\$ 30.00/ S.F.	\$ 141,000.00
		20% Contingency*	\$ 50,082.00
		TOTAL	\$ 300,492.00

* A 20% contingency has been added to the cost as a reserve so costs are not underestimated.

**Savannah Middle School
 10500 Missouri T
 Savannah, MO 64485
 (816) 324-3126
 Principal Leisa Blair**



Enrollment 500 Below Poverty 33% Minorities 4%

Cost Estimate for Savannah Middle School

Refer to the corresponding map. The map includes an analysis of the sidewalk conditions around the school. Estimates are based upon the current conditions of the infrastructure.

ITEM	QUANTITY	PRICE	TOTAL
Code 1: No Replacement	0 S.F.	\$ 0.00/ S.F.	\$ 0
Code 2: Good Condition. Little cracking. 50% of section needs replacement.	0 S.F.	\$ 2.50/ S.F.	\$ 0
Code 3: Poor condition. Remove and replace.	0 S.F.	\$ 5.00/ S.F.	\$ 0
Code 4: No sidewalk. Install with few impediments.	16,730 S.F.	\$ 7.00/ S.F.	\$ 117,110.00
Code 5: No sidewalk. Install with difficult impediments.	0 S.F.	\$ 9.00/ S.F.	\$
20% Contingency*			\$ 23,422.00
TOTAL			\$ 140,532.00

* A 20% contingency has been added to the cost as a reserve so costs are not underestimated.

Savannah High School
701 State Rt. E
Savannah, MO 64485
(816) 324-3128
Principal Steve N. Kellepouris



Enrollment 750

Below Poverty 18%

Minorities 2%

Cost Estimate for Savannah High School

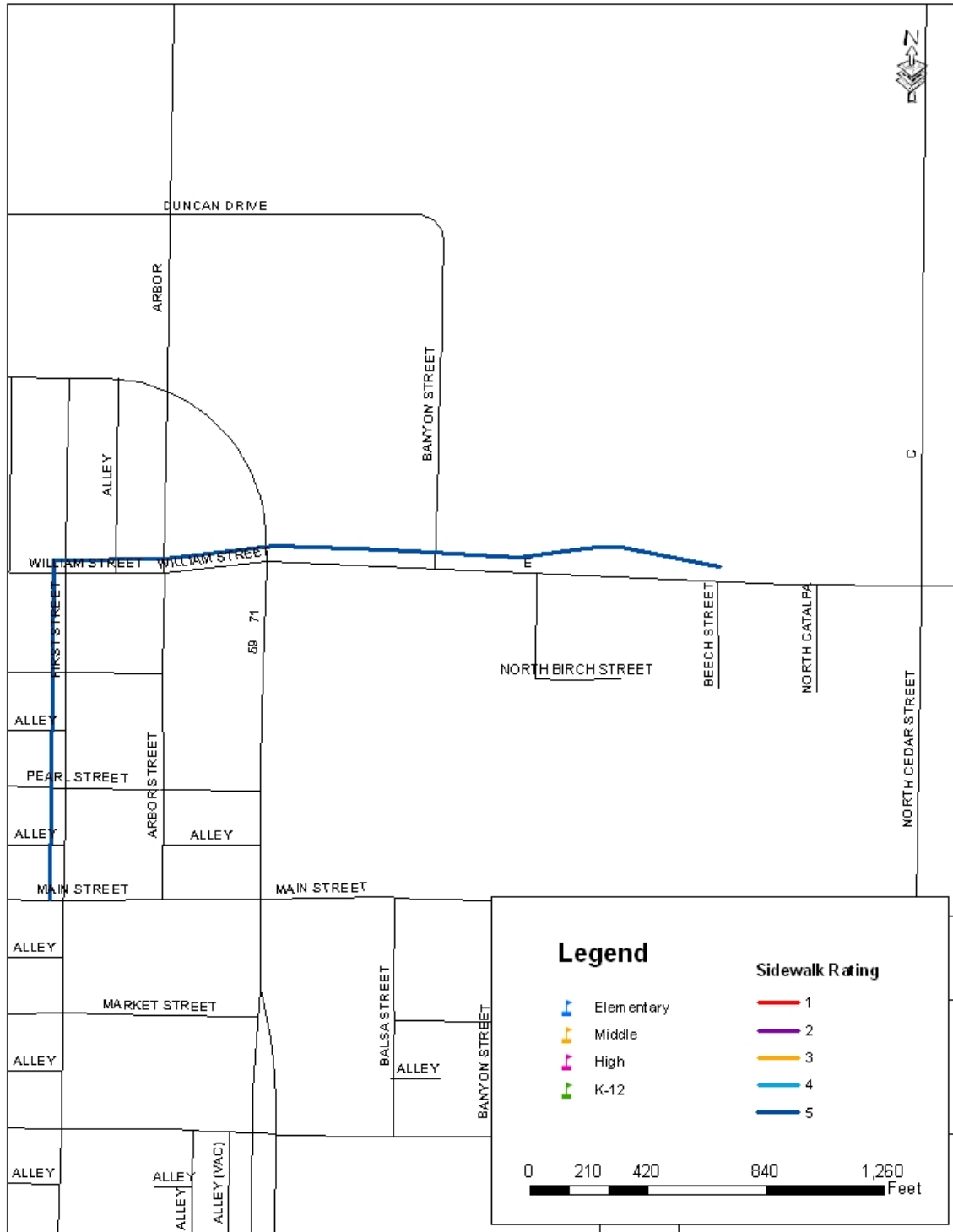
Refer to the corresponding map. The map includes an analysis of the sidewalk conditions around the school. Estimates are based upon the current conditions of the infrastructure.

ITEM	QUANTITY	PRICE	TOTAL
Code 1: No Replacement	0 S.F.	\$ 0.00/ S.F.	\$ 0
Code 2: Good Condition. Little cracking. 50% of section needs replacement.	0 S.F.	\$ 2.50/ S.F.	\$ 0
Code 3: Poor condition. Remove and replace.	0 S.F.	\$ 5.00/ S.F.	\$ 0
Code 4: No sidewalk. Install with few impediments.	0 S.F.	\$ 7.00/ S.F.	\$ 0
Code 5: No sidewalk. Install with difficult impediments.	18,000 S.F.	\$ 9.00/ S.F.	\$ 162,000.00
3' Retaining Wall	1,000 S.F.	\$ 30.00/ S.F.	\$ 30,000.00
		20% Contingency*	\$ 38,400.00
TOTAL			\$ 230,400.00

* A 20% contingency has been added to the cost as a reserve so costs are not underestimated.

Figure 6

Savannah High School Sidewalk Conditions



References

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- ⁹ “Creating Livable Sustainable Communities” New Urbanism. Available: <http://www.newurbanism.org/newurbanism/smartgrowth.html>. Accessed November, 17, 2009.